Worth, TX 76177; telephone (817) 222–5786; email *david.wilson@faa.gov*.

(2) The subject of this AD is addressed in Transport Canada Emergency AD CF–2021–23, dated July 5, 2021.

Issued on July 30, 2021.

Ross Landes,

Deputy Director for Regulatory Operations, Compliance & Airworthiness Division, Aircraft Certification Service.

[FR Doc. 2021–17024 Filed 8–5–21; 4:15 pm]

BILLING CODE 4910–13–P

DEPARTMENT OF TRANSPORTATION

Federal Aviation Administration

14 CFR Part 39

[Docket No. FAA–2021–0347; Project Identifier AD–2020–01610–E; Amendment 39–21652; AD 2021–15–05]

RIN 2120–AA64

Airworthiness Directives; General Electric Company Turbofan Engines

AGENCY: Federal Aviation Administration (FAA), DOT.

ACTION: Final rule.

SUMMARY: The FAA is adopting a new airworthiness directive (AD) for all General Electric Company (GE) GE90–110B1 and GE90–115B model turbofan engines. This AD was prompted by an in-service occurrence of loss of engine thrust control resulting in uncommanded high thrust. This AD requires initial and repetitive replacement of the full authority digital engine control (FADEC) integrated circuit (MN4) microprocessor. The FAA is issuing this AD to address the unsafe condition on these products.

DATES: This AD is effective September 13, 2021.

The Director of the Federal Register approved the incorporation by reference of a certain publication listed in this AD as of September 13, 2021.

ADDRESSES: For service information identified in this final rule, contact General Electric Company, 1 Neumann Way, Cincinnati, OH 45215; phone: (513) 552–3272; email: *aviation.fleetsupport@ae.ge.com;* website: *www.ge.com.* You may view this service information at the FAA, Airworthiness Products Section, Operational Safety Branch, 1200 District Avenue, Burlington, MA 01803. For information on the availability of this material at the FAA, call (781) 238–7759. It is also available at *https://www.regulations.gov* by searching for and locating Docket No. FAA–2021–0347.

Examining the AD Docket

You may examine the AD docket at *https://www.regulations.gov* by searching for and locating Docket No. FAA–2021–0347; or in person at Docket Operations between 9 a.m. and 5 p.m., Monday through Friday, except Federal holidays. The AD docket contains this final rule, any comments received, and other information. The address for Docket Operations is U.S. Department of Transportation, Docket Operations, M–30, West Building Ground Floor, Room W12–140, 1200 New Jersey Avenue SE, Washington, DC 20590.

FOR FURTHER INFORMATION CONTACT: Stephen Elwin, Aviation Safety Engineer, ECO Branch, FAA, 1200 District Avenue, Burlington, MA 01803; phone: (781) 238–7236; fax: (781) 238–7199; email: *Stephen.L.Elwin@faa.gov*.

SUPPLEMENTARY INFORMATION:

Background

The FAA issued a notice of proposed rulemaking (NPRM) to amend 14 CFR part 39 by adding an AD that would apply to all GE GE90–110B1 and GE90–115B model turbofan engines. The NPRM published in the **Federal Register** on May 7, 2021 (86 FR 24554). The NPRM was prompted by an in-service occurrence of loss of engine thrust control resulting in uncommanded high thrust. The FAA received a report from the manufacturer of an in-service loss of engine thrust control that occurred on October 27, 2019, resulting in uncommanded high thrust. Analysis by the manufacturer found accumulated thermal cycles of the MN4 integrated circuit in the FADEC, through normal operation, causes the solder ball joints to wear out and eventually fail over time. The FAA published AD 2020–20–17 (85 FR 63443, dated October 8, 2020) to prohibit dispatch of an airplane if certain status messages are displayed on the engine indicating and crew alerting system and if certain conditions are present per the manufacturer's service information. As a terminating action, AD 2020–20–17 also requires revision of the existing FAA-approved minimum equipment list (MEL) by incorporating into the MEL the dispatch restrictions listed in AD 2020–20–17. Since the effective date of AD 2020–20–17, the manufacturer published GE GE90–100 Service Bulletin (SB) 73–0118 R00, dated November 6, 2020, and Revision 01, dated April 27, 2021, to replace the FADEC MN4 microprocessor and solder. In the NPRM, the FAA proposed to require initial and repetitive replacement of the FADEC MN4 microprocessor using an approved overhaul procedure. The FAA is issuing this AD to address the unsafe condition on these products.

Discussion of Final Airworthiness Directive

Comments

The FAA received comments from five commenters. Commenters included Air Line Pilots Association, International (ALPA), Boeing Commercial Airplanes (Boeing), Cathay Pacific Airways Limited (Cathay), FedEx Express (FedEx), and United Airlines, Inc. The following presents the comments received on the NPRM and the FAA's response to each comment.

Request To Revise Installation Prohibition

Cathay requested the FAA revise paragraph (h), Installation Prohibition, of the NPRM that specifies no more than three replacements of the FADEC MN4 microprocessor may be performed on the same main channel board. Cathay suggested that the FAA revise proposed paragraph (h) to prohibit installation onto any engine of any FADEC that is not compliant with GE GE90–100 SB 73–0118. Cathay stated that the MN4 processor replacements are managed by the original equipment manufacturer's (OEM) internal maintenance procedures and operators do not have visibility into the number of replacements that have been performed.

The FAA partially agrees. As stated by Cathay, the MN4 processor replacements are managed by the OEM's internal maintenance procedures and, therefore, are not necessary in this AD. The FAA has removed paragraph (h), Installation Prohibition, from this AD. The subsequent paragraphs of this AD have been redesignated accordingly.

Request To Add Terminating Action

FedEx requested the upcoming FADEC software revision (A085) be included in this AD as a terminating action. FedEx commented that this AD may no longer be necessary due to the development and pending release of GE's new and improved FADEC software upgrade (A085).

The FAA disagrees. The new FADEC software revision (A085) has not been approved by the FAA. Therefore, this software is not eligible for installation and cannot be referenced in this AD. The FAA considers this AD to be an interim action. If terminating action is identified later, the FAA might consider additional rulemaking. The FAA did not change this AD.

Support for the AD

ALPA and Boeing expressed support for the NPRM as written. United Airlines, Inc. stated they had no objections to the NPRM as proposed.

Conclusion

The FAA reviewed the relevant data, considered any comments received, and determined that air safety requires adopting this AD as proposed. Accordingly, the FAA is issuing this AD to address the unsafe condition on these products. Except for minor editorial changes, and any other changes described previously, this AD is adopted as proposed in the NPRM. None of the changes will increase the economic burden on any operator.

Related Service Information Under 1 CFR Part 51

The FAA reviewed General Electric GE90–100 Service Bulletin (SB) 73–0118, Revision 01, dated April 27, 2021. This SB specifies procedures for replacing the FADEC MN4 microprocessor. This service information is reasonably available because the interested parties have access to it through their normal course of business or by the means identified in **ADDRESSES**.

Interim Action

The FAA considers this AD to be an interim action. If final action is later identified, the FAA may consider additional rulemaking.

Costs of Compliance

The FAA estimates that this AD affects 311 engines installed on airplanes of U.S. registry.

The FAA estimates the following costs to comply with this AD:

ESTIMATED COSTS

Action	Labor cost	Parts cost	Cost per product	Cost on U.S. operators
Remove and replace FADEC	1 work-hour × $85 per hour = $85	$25,200	$25,285	$7,863,635

The FAA has included all known costs in its cost estimate. According to the manufacturer, however, some of the costs of this AD may be covered under warranty, thereby reducing the cost impact on affected individuals.

Authority for This Rulemaking

Title 49 of the United States Code specifies the FAA's authority to issue rules on aviation safety. Subtitle I, section 106, describes the authority of the FAA Administrator. Subtitle VII: Aviation Programs, describes in more detail the scope of the Agency's authority.

The FAA is issuing this rulemaking under the authority described in Subtitle VII, Part A, Subpart III, Section 44701: General requirements. Under that section, Congress charges the FAA with promoting safe flight of civil aircraft in air commerce by prescribing regulations for practices, methods, and procedures the Administrator finds necessary for safety in air commerce. This regulation is within the scope of that authority because it addresses an unsafe condition that is likely to exist or develop on products identified in this rulemaking action.

Regulatory Findings

This AD will not have federalism implications under Executive Order 13132. This AD will not have a substantial direct effect on the States, on the relationship between the national government and the States, or on the distribution of power and responsibilities among the various levels of government.

For the reasons discussed above, I certify that this AD:

(1) Is not a ''significant regulatory action'' under Executive Order 12866,

(2) Will not affect intrastate aviation in Alaska, and

(3) Will not have a significant economic impact, positive or negative, on a substantial number of small entities under the criteria of the Regulatory Flexibility Act.

List of Subjects in 14 CFR Part 39

Air transportation, Aircraft, Aviation safety, Incorporation by reference, Safety.

The Amendment

Accordingly, under the authority delegated to me by the Administrator, the FAA amends 14 CFR part 39 as follows:

PART 39—AIRWORTHINESS DIRECTIVES

■ 1. The authority citation for part 39 continues to read as follows:

Authority: 49 U.S.C. 106(g), 40113, 44701.

§ 39.13 [Amended]

■ 2. The FAA amends § 39.13 by adding the following new airworthiness directive:

2021–15–05 General Electric Company: Amendment 39–21652; Docket No. FAA–2021–0347; Project Identifier AD–2020–01610–E.

(a) Effective Date

This airworthiness directive (AD) is effective September 13, 2021.

(b) Affected ADs

None.

(c) Applicability

This AD applies to General Electric Company (GE) GE90–110B1 and GE90–115B model turbofan engines.

(d) Subject

Joint Aircraft System Component (JASC) Code 7600, Engine Controls.

(e) Unsafe Condition

This AD was prompted by an in-service occurrence of loss of engine thrust control resulting in uncommanded high thrust. The FAA is issuing this AD to prevent failure of the full authority digital engine control (FADEC) integrated circuit (MN4) microprocessor solder ball. The unsafe condition, if not addressed, could result in loss of engine thrust control and reduced control of the airplane.

(f) Compliance

Comply with this AD within the compliance times specified, unless already done.

(g) Required Actions

(1) Within the following compliance times after the effective date of this AD, replace the FADEC MN4 microprocessor using an approved overhaul procedure:

(i) For a FADEC MN4 microprocessor with 10,500 or more cycles since new (CSN), replace the FADEC MN4 microprocessor before accumulating 500 additional cycles on the FADEC MN4 microprocessor.

(ii) For a FADEC MN4 microprocessor with 5,000 CSN or more, but fewer than 10,500 CSN, replace the FADEC MN4 microprocessor at the next FADEC component shop visit or before accumulating 11,000 CSN on the FADEC MN4 microprocessor, whichever occurs first.

(2) Thereafter, repeat the replacement of the FADEC MN4 microprocessor at the first FADEC component shop visit after accumulating 5,000 CSN since the last replacement but before accumulating 11,000 CSN since the last replacement.

(h) Definition

(1) For the purpose of this AD, an ''approved overhaul procedure'' is one of the following:

(i) Replacement of the FADEC MN4 microprocessor using FADEC International-approved maintenance procedures; or

(ii) Replacement of the FADEC MN4 microprocessor using the Accomplishment Instructions, paragraph 3.A., of GE GE90–100 Service Bulletin 73–0118, Revision 01, dated April 27, 2021.

(2) For the purpose of this AD, a ''FADEC component shop visit'' is the induction of the FADEC into a repair facility to perform internal maintenance on the FADEC.

(i) Alternative Methods of Compliance (AMOCs)

(1) The Manager, ECO Branch, FAA, has the authority to approve AMOCs for this AD, if requested using the procedures found in 14 CFR 39.19. In accordance with 14 CFR 39.19, send your request to your principal inspector or local Flight Standards District Office, as appropriate. If sending information directly to the manager of the certification office, send it to the attention of the person identified in Related Information. You may email your request to: *ANE-AD-AMOC@faa.gov*.

(2) Before using any approved AMOC, notify your appropriate principal inspector, or lacking a principal inspector, the manager of the local flight standards district office/certificate holding district office.

(j) Related Information

For more information about this AD, contact Stephen Elwin, Aviation Safety Engineer, ECO Branch, FAA, 1200 District Avenue, Burlington, MA 01803; phone: (781) 238–7236; fax: (781) 238–7199; email: *Stephen.L.Elwin@faa.gov*.

(k) Material Incorporated by Reference

(1) The Director of the Federal Register approved the incorporation by reference (IBR) of the service information listed in this paragraph under 5 U.S.C. 552(a) and 1 CFR part 51.

(2) You must use this service information as applicable to do the actions required by this AD, unless the AD specifies otherwise.

(i) General Electric Company (GE) GE90–100 Service Bulletin 73–0118, Revision 01, dated April 27, 2021.

(ii) [Reserved]

(3) For GE service information identified in this AD, contact General Electric Company, 1 Neumann Way, Cincinnati, OH 45215; phone: (513) 552–3272; email: *aviation.fleetsupport@ae.ge.com;* website: *www.ge.com*.

(4) You may view this service information at FAA, Airworthiness Products Section, Operational Safety Branch, 1200 District Avenue, Burlington, MA 01803. For information on the availability of this material at the FAA, call (781) 238–7759.

(5) You may view this service information that is incorporated by reference at the National Archives and Records Administration (NARA). For information on the availability of this material at NARA, email: *fedreg.legal@nara.gov,* or go to: *https://www.archives.gov/federal-register/cfr/ibr-locations.html*.

Issued on July 9, 2021.

Gaetano A. Sciortino,

Deputy Director for Strategic Initiatives, Compliance & Airworthiness Division, Aircraft Certification Service.

[FR Doc. 2021–16766 Filed 8–6–21; 8:45 am]

BILLING CODE 4910–13–P

DEPARTMENT OF TRANSPORTATION

Federal Aviation Administration

14 CFR Part 71

[Docket No. FAA–2021–0418; Airspace Docket No. 21–ACE–12]

RIN 2120–AA66

Amendment of Class E Airspace; New Madrid, MO

AGENCY: Federal Aviation Administration (FAA), DOT.

ACTION: Final rule.

SUMMARY: This action amends Class E airspace extending upward from 700 feet above the surface at County Memorial Airport, New Madrid, MO. The FAA is taking this action as a result of an airspace review caused by the decommissioning of the Malden Very High Frequency Omnidirectional Range (VOR) collocated with Tactical Air Navigation (VORTAC) navigational aid as part of the VOR Minimum Operational Network (MON) Program. Controlled airspace is necessary for the safety and management of instrument flight rules (IFR) in the area.

DATES: Effective 0901 UTC, October 7, 2021. The Director of the Federal Register approves this incorporation by reference action under 1 CFR part 51, subject to the annual revision of FAA Order 7400.11 and publication of conforming amendments.

ADDRESSES: FAA Order 7400.11E, Airspace Designations and Reporting Points, and subsequent amendments can be viewed online at *https://www.faa.gov/air_traffic/publications/*. For further information, you can contact the Airspace Policy Group, Federal Aviation Administration, 800 Independence Avenue SW, Washington, DC 20591; Telephone: (202) 267–8783. The Order is also available for inspection at the National Archives and Records Administration (NARA). For information on the availability of FAA Order 7400.11E at NARA, email *fr.inspection@nara.gov* or go to *https://www.archives.gov/federal-register/cfr/ibr-locations.html*.

FOR FURTHER INFORMATION CONTACT: John Fornito, Operations Support Group, Eastern Service Center, Federal Aviation Administration, 1701 Columbia Avenue, College Park, GA 30337; Telephone (404) 305–6364.

SUPPLEMENTARY INFORMATION:

Authority for This Rulemaking

The FAA's authority to issue rules regarding aviation safety is found in Title 49 of the United States Code. Subtitle I, Section 106, describes the authority of the FAA Administrator. Subtitle VII, Aviation Programs, describes in more detail the scope of the agency's authority. This rulemaking is promulgated under the authority described in Subtitle VII, Part A, Subpart I, Section 40103. Under that section, the FAA is charged with prescribing regulations to assign the use of airspace necessary to ensure the safety of aircraft and the efficient use of airspace. This regulation is within the scope of that authority as it amends the Class E airspace extending upward from 700 feet above the surface in New Madrid, MO, to support IFR operations in the area.

History

The FAA published a notice of proposed rulemaking in the **Federal Register** (86 FR 30399, June 8, 2021) for Docket No. FAA–2021–0418 to amend Class E airspace extending upward from 700 feet above the surface at County Memorial Airport, New Madrid, MO, due to the decommissioning of the Malden VORTAC.

Interested parties were invited to participate in this rulemaking effort by submitting written comments on the proposal to the FAA. No comments were received.

Class E airspace designations are published in Paragraph 6005, of FAA Order 7400.11E, dated July 21, 2020, and effective September 15, 2020, which is incorporated by reference in 14 CFR 71.1. The Class E airspace designations listed in this document will be published subsequently in the Order.

Availability and Summary of Documents for Incorporation by Reference

This document amends FAA Order 7400.11E, Airspace Designations and Reporting Points, dated July 21, 2020, and effective September 15, 2020. FAA Order 7400.11E is publicly available as listed in the **ADDRESSES** section of this document. FAA Order 7400.11E lists Class A, B, C, D, and E airspace areas, air traffic routes, and reporting points.